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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,368	04/23/2001	Timothy M. Moore	205895	3824
23460	7590	06/28/2004	EXAMINER	
LEYDIG VOIT & MAYER, LTD TWO PRUDENTIAL PLAZA, SUITE 4900 180 NORTH STETSON AVENUE CHICAGO, IL 60601-6780			DUONG, OANH L	
			ART UNIT	PAPER NUMBER
			2155	
DATE MAILED: 06/28/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)
	09/840,368	MOORE ET AL.
Examiner	Art Unit	
Oanh L. Duong	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 01 April 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-17 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-17 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: ____.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 16-17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Specifically the claims are directed toward a data structure per se. Such claimed data structures do not define any structure and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized (see MPEP § 2106).

Claim Objections

2. Claim 12 and 15 is objected to because of the following informalities: how a computer-readable medium having computer-executable instruction can depend on the method claims. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 13 and 15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Henning Maass (Maass).

Regarding claim 13, Maass teaches a method for an application running on a computing device to choose a configuration to use (e.g., see fig. 2), the method comprising accessing a service provided by the computing device to retrieve physical location information about the computing device attached to a network (e.g., see pages 157-158 section 1), accessing a list that relates physical location to stored application configurations (e.g., see pages 158-159 section 2), and choosing a configuration that is related to the physical location (e.g., see page 165 paragraph 5.3). Maass does not explicitly teach retrieving physical location about an interface on the computing device. It would have been obvious to one having ordinary skill in the art to readily recognize that determining the physical location of the computing device connected to a network is equivalent to determining the physical location of the interface used to connect the computing device to the network, since the result is the same physical location. Therefore, retrieving physical location information of the computing device can be used as a substitution of retrieving physical location information about an interface on the computing device

Regarding claim 15, the claim 15 is rejected under the same rationale as applied to claim 13.

4. Claims 1, 4-10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henning Maass (Maass) in view of Hayes (US 6,225,944 B1).

Regarding claim 1, Maass teaches a service provided to an application running on a computing device (e.g., see page 158 fig. 2), the service comprising discovering information pertaining to a physical location the computing device to a logical network (e.g., see pages 157-160, section 1 and section 3), reporting to the application the discovered physical location information (e.g., see page 165 section 5.3 and page 166 section 6.2). Maass does not explicitly teach retrieving physical location about an interface on the computing device. It would have been obvious to one having ordinary skill in the art to readily recognize that determining the physical location of the computing device connected to a network is equivalent to determining the physical location of the interface used to connect the computing device to the network, since the result is the same physical location. Therefore, retrieving physical location information of the computing device can be used as a substitution of retrieving physical location information about an interface on the computing device. Maass does not explicitly teach notifying the application when the reported physical location information changes. However, Hayes teaches notifying the application when the reported physical location information changes (e.g., see col. 6 lines 44-56). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine application notification in the system of Maass as taught by Hayes because such notification would provide location information to the application with high accuracy (Hayes, col. 1 lines 55-56).

Regarding claim 4, Mass teaches recording what information was reported to what application and wherein notifying comprises checking records of what information was reported to what application (e.g., see page 165 section 5.3).

Regarding claim 5, Maass/Hayes teaches a reporting threshold set by the application and reporting only those changes whose magnitude exceeds the reporting threshold (Hayes, col. 4 lines 57-64 and col. 6 lines 51-56).

Regarding claim 6, Maass teaches a list of physical location discovery methods applicable to the interface (e.g., see page 160 section 3.1).

Regarding claim 7, Maass teaches service performs a plurality of physical location discovery methods listed as applicable to the interface, and wherein reporting comprises reporting to the application physical location information discovered from the plurality of methods (e.g., see page 160 section 3.1).

Regarding claim 8, Maass/Hayes teaches converting the discovered physical location information into a common format before reporting it to the application (Hayes, col. 6 lines 16-21).

Regarding claim 9, Maass teaches notifying the application when information provided to it is supplemented by further information (e.g. see pages 157-158, section 1).

Regarding claim 10, computer-readable medium having instructions for providing a service to an application running on a computing device of claim 10 has a corresponding method of claim 1. Therefore, the claim 10 is rejected under the same rationale as applied to claim 1.

Regarding claim 14, Maass does not explicitly teach the service informs the application when the physical location information provided to the application changes. However, Hayes teaches the service informs the application when the physical location information provided to the application changes (e.g., see col. 6 lines 44-56). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the informing step in the system of Maass as taught by Hayes because such informing step would provide location information to the application with high accuracy (Hayes, col. 1 lines 55-56).

5. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henning Maass (Maass) in view of Hayes (US 6,225,944 B1) in further view of Admitted Prior Art (APA).

Regarding claim 2, Maass teach reporting information to the application (e.g., see page 165 section 5.3 and page 166 section 6.2). The combination of teachings of Maass and Hayes does not explicitly teach error ranges. However, APA teaches error ranges (see page 42 lines 18). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the error ranges in combination of teachings of Maass and Hayes as taught by APA because it was conventionally employed in the art to allow location information to be provided with high accuracy.

Regarding claim 3, Maass teaches a method used to discover the physical location information (e.g., see page 160 section 3.1). The combination of Maass and

Hayes does not explicitly teach latitude, longitude, and altitude. However, APA teaches latitude, longitude, altitude (page 42 lines 16-18). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to applied the conversion format in the combination of teachings of Maass and Hayes as taught by APA because it was conventionally employed in the art to allow the absolute terrestrial position of any computing device to be computed.

6. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsukura (US 6,145,126) in view of (IBM Technical Disclosure Bulletin, December 1983, NB83129316) (IBM) in view of Lang (US 2003/0083931 A1) in further view of Hayes.

Regarding claim 11, Matsukura teaches a method for providing information to an application on a computing device, the method comprising discovering logical networks to which the computing device is attached (col. 27 lines 16-17).

Matsukura does not teach naming and discovering physical information. IBM teaches naming the logical networks in a manner that provides a mapping between the names given to the logical networks and the logical networks (disclosure text). IBM teaches such name addresses the problems created when more than one network is merged such that there are two or more nodes with the same name, and thereby allowing the nodes to coexist and be addressed separately (disclosure text). It would have been obvious to one having ordinary skill in the art at the time the invention

was made to have utilized the network name of IBM in the process of providing information to an application of Matsukura.

Lang teaches discovering information about physical locations of interfaces on the computing device to the logical networks (page 4 claim 4), providing the names and physical location information about the logical network interfaces to the application (page 4 claim 5). Lang teaches such identity and physical information would effectively target advertisements to users of computers connected to the network (page 1 paragraph 6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the identity and physical location information of Lang in the process of providing information in Matsukura.

Hayes teaches notifying the application when the information provided to it changes (e.g., see col. 6 lines 44-56). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine application notification in the system of Maass as taught by Hayes because such notification would provide information to the application with high accuracy (Hayes, col. 1 lines 55-56).

Regarding claim 12, a computer-readable medium having computer-executable instructions of 12 has a corresponding service of claim 11. Therefore, claim 12 is rejected under the same rationale as applied to claim 11.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsukura et al. (Matsukura) (US 6,145,126) in view of Lang (US 2003/0083931 A1).

Regarding claim 16, Matsukura teaches a data structure comprising:

A first data field containing data represent a name of a logical network to which a computer device is connected (col. 27 lines 13-17).

Matsukura does not teach fields containing data representing identity and physical location information.

Lang, in the same field of endeavor, teaches second data field containing data representing a global unique identifier of an interface on the computing device through which the logical network is accessible, and a third data field containing data representing a physical location of the interface on the computing device through which the logical network is accessible (page 3 claim 1 and page 4 claim 4). Lang teaches the use of the identity and physical information would effectively target advertisements to users of computers connected to the network (page 1 paragraph 6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the fields containing the identity and physical location information of Lang in the data structure of Matsukura.

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsukura et al. (Matsukura) (US 6,145,126) in view of Lang (US 2003/0083931 A1) in further view of Angwin et al. (Angwin) (US 6,477,576 B2).

Regarding claim 17, Matsukura-Lang does not explicitly teach the type of connection and a speed of connection. However, Angwin teaches the type of connection and a speed of connection (e.g., see col. 5 line 61-col. 6 line 7). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have utilized the type and speed of connection in Matsukura-Lang as taught by Angwin because such type and speed of connection would enable the services available to the computing device to be identified so as to take advantage of the particular operating environment (Angwin, col. 6 line 6-7).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Oanh L. Duong whose telephone number is (703) 305-0295. The examiner can normally be reached on Monday- Friday, 8:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (703) 308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

O.D
June 19, 2004



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PRIMARY EXAMINER